

MECHANICAL SIZING AND FAN POWER

MECH-4

PROJECT NAME

DATE

SYSTEM NAME

FLOOR AREA

NOTE: Provide one copy of this form for each mechanical system when using the Prescriptive Approach.

SIZING and EQUIPMENT SELECTION

1. DESIGN CONDITIONS:

- OUTDOOR, DRY BULB TEMPERATURE (APPENDIX C)
- OUTDOOR, WET BULB TEMPERATURE (APPENDIX C)
- INDOOR, DRY BULB TEMPERATURE (See Chap. 8, ASHRAE handbook, 1993)

COOLING

HEATING

2. SIZING

- DESIGN OUTDOOR AIR CFM (MECH 3; COLUMN I)
- ENVELOPE LOAD Btu/Hr (ENV-2 Part 2 of 5 Column E)
- LIGHTING W / SF (Adjusted Actual Watts-LTG-2)
- PEOPLE # OF PEOPLE (MECH 3; COLUMN E)
- MISCELLANEOUS EQUIPMENT WATTS / SF
- OTHER

1) 2) 3) **TOTALS**

OTHER LOADS/SAFETY FACTOR (1.21 for cooling, 1.43 for heating)

MAXIMUM ADJUSTED LOAD (TOTALS FROM ABOVE x OTHER LOAD SAFETY FACTOR)

3. SELECTION:

INSTALLED EQUIPMENT CAPACITY

KBtu / Hr

KBtu / Hr

IF INSTALLED CAPACITY EXCEEDS MAXIMUM

ADJUSTED LOAD, EXPLAIN _____

FAN POWER CONSUMPTION

A FAN DESCRIPTION	B DESIGN BRAKE HP	C EFFICIENCY		D DRIVE	E NUMBER OF FANS	F PEAK WATTS B x E x 746 / (C x D)	G CFM (Supply Fans)
		MOTOR					
TOTALS							

NOTE: Include only fan systems exceeding 25 HP (see § 144).
Total Fan System Power Demand may not exceed 0.8
Watts/CFM for constant volume systems or 1.25 Watts/CFM for
VAV systems.

**TOTAL FAN SYSTEM
POWER DEMAND
WATTS / CFM**

Col. F /
Col. G